

What is claimed is:

1. A pigmented recording material comprising an ink-receiving layer, wherein said ink-receiving layer includes the following constituents:
  - a) 5-25% by weight of polymeric ink-fixing mixture of water-soluble and water-insoluble cationic polymers;
  - b) 5-20% by weight of a water-soluble plasticizer; and
  - c) 30-80% by weight of silica dispersion obtained by surface modification with alkylsilanes of the structural formula  $R_1Si(OR_2)_3$  wherein  $R_1$  is vinyl, acryloyl, methacryloyl or  $C_1$ - $C_8$ -alkyl,  $R_2$  is methyl or ethyl, and said silica dispersion to said alkylsilane being in a weight ratio in a range from 1:1 to 9:1.
2. The recording material as claimed in claim 1, wherein said ink-receiving layer further includes up to 20% by weight of a polymer dispersion having a glass transition temperature of  $< 25^\circ C$ .
3. The recording material as claimed in claim 1, wherein said silica dispersion has a particle size in a range from 0.04 to 0.3  $\mu m$ .
4. The recording material as claimed in claim 1, wherein said ink-receiving layer includes a mixture of silica dispersions having different particle sizes.
5. The recording material as claimed in claim 3, wherein said ink-receiving layer includes a mixture of silica dispersions having different particle sizes.
6. The recording material as claimed in claim 1, wherein said surface modification is effected using an alkylsilane mixture.
7. The recording material as claimed in claim 1, wherein said water-soluble plasticizer is polyethylene glycol having an average molecular weight of from 200 to 20,000 daltons or mixtures thereof.
8. The recording material as claimed in claim 2, wherein said polymer dispersion includes polyacrylates or butadiene-styrene copolymers.
9. The recording material as claimed in claim 1, comprising a layer of at least one crosslinked water-soluble polymer 0.5-5  $\mu m$  in thickness as protective layer for said ink-receiving layer.

10. The recording material as claimed in claim 2, wherein said silica dispersion has a particle size in a range from 0.04 to 0.3  $\mu\text{m}$ .

11. The recording material as claimed in claim 2, wherein said ink-receiving layer includes a mixture of silica dispersions having different particle sizes.

12. The recording material as claimed in claim 10, wherein said ink-receiving layer includes a mixture of silica dispersions having different particle sizes.

13. The recording material as claimed in claim 2, wherein said surface modification is effected using an alkylsilane mixture.

14. The recording material as claimed in claim 2, wherein said water-soluble plasticizer is polyethylene glycol having an average molecular weight of from 200 to 20,000 daltons or mixtures thereof.

15. The recording material as claimed in claim 2, comprising a layer of at least one crosslinked water-soluble polymer 0.5-5  $\mu\text{m}$  in thickness as protective layer for said ink-receiving layer.

16. A method of printing comprising printing onto the recording material recited in claim 1 using an inkjet printer.

17. A method of printing comprising printing onto the recording material recited in claim 2 using an inkjet printer.

18. A method of printing comprising printing onto the recording material recited in claim 3 using an inkjet printer.

19. A method of printing comprising printing onto the recording material recited in claim 7 using an inkjet printer.

20. A method of printing comprising printing onto the recording material recited in claim 11 using an inkjet printer.

21. A method of forming a pigmented recording material comprising an ink-receiving layer, comprising applying as the ink-receiving layer the following constituents:

- a) 5-25% by weight of polymeric ink-fixing mixture of water-soluble and water-insoluble cationic polymers;
- b) 5-20% by weight of a water-soluble plasticizer; and

22. The recording material as claimed in claim 1, wherein said ink-receiving layer further includes up to 20% by weight of a polymer dispersion having a glass transition temperature of < 25°C.